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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,233	11/27/2006	Bernard Patrick Masterson	0065.37/PCT-CIP-US	6116
25871	7590	11/13/2009	EXAMINER	
SWANSON & BRATSCHUN, L.L.C. 8210 SOUTHPARK TERRACE LITTLETON, CO 80120				KIM, ELLEN E
ART UNIT		PAPER NUMBER		
2874				
NOTIFICATION DATE			DELIVERY MODE	
11/13/2009			ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

efspatents@sbiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/599,233	MASTERSON ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Ellen Kim	2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 30 July 2009.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-28 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 and 8-24 is/are rejected.  
 7) Claim(s) 2-6, 25-28 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 7/1/09.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

This is responsive to Applicant's amendment filed on 7/30/09.

### ***Response to Arguments***

Applicant's arguments filed 7/30/09, with respect to the rejection(s) of all the claim(s) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nafarrate et al (USPAT 5,291,013).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**Claims 1 and 24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nafarrate et al.**

Nafarrate et al disclose an optical device comprising: a multimode optical fiber (column 1, lines 16-23); and means for averaging a modal noise (see fig. 1 and fig. 3c) induced signal level variation of light propagating within the multimode optical fiber.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 12-13, 18-20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al (USPUB 2003/0101774), and in view of Kim et al (USPAT 6,678,451).**

Oh et al disclose an optical fiber 2, a thermal element 40 providing for the cyclical variation of a temperature of the optical fiber.

Oh et al disclose every aspect of claimed invention except for the multimode optical fiber.

Kim et al disclose a multimode optical fiber.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Oh et al device to include the multimode optical fiber as shown in Kim et al for the purpose of reducing scattering loss (see Kim et al, abstract).

It is clear this would improve the device.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed, such as "...for averaging..." does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Re claim 13, see ¶0033 in Oh et al.

Re claims 19-21, the system 100 shows stretching an optical fiber from 1.

**Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh et al, Kim et al, and further in view of Tanner et al (USPAT 5,468,239).**

Re claims 14-17, Oh et al and Kim et al disclose every aspect of claimed invention except for the heat sink and a fan.

Tanner et al disclose a laser comprising the claimed heat sink and a fan (see column 12, lines 41-55).

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify the device to include the claimed heat sink and a fan as shown in Tanner et al for the purpose of cooling down the device. It is clear this would improve the device.

Re claim 15, a spool 22 is shown in fig. 1.

Re claim 16, Oh et al, Kim et al, and Tanner et al disclose every aspect of claimed invention except for the claimed length of optical fiber. It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify the device to have the claimed length, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d272, 205 USPQ 215 (CCPA 1980).

**Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roba et al (USPUB 2006/0147166) in view of Kim et al (USPAT 6,678,451)..**

Roba et al disclose an optical device comprising an optical fiber; a manipulation apparatus operatively associated with the optical fiber.

Roba et al disclose every aspect of claimed invention except for the multimode optical fiber.

Kim et al disclose a multimode optical fiber.

It would have been obvious to the ordinary skilled person in the art at the time the invention was made to modify Roba et al device to include the multimode optical fiber as shown in Kim et al for the purpose of reducing scattering loss (see Kim et al, abstract).

It is clear this would improve the device.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed, such as "...for averaging..." does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Re claims 22-23, fig. 4 shows a motorized device 33 with twisting optical fiber.

***Allowable Subject Matter***

Claims 2-6, 25-27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest an optical device comprising all the specific elements with the specific combination including claimed means for averaging as set forth in claims.

Claims 7-11 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art does not disclose or suggest a method of time averaging modal noise comprising all the specific elements with the specific combination including cyclically varying an index of refraction of the multimode optical fiber as set forth in claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

In formation regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all official patent application related correspondence for organizations reporting to the Commissioner of Patents:

- Correspondence that is transmitted by facsimile must be directed to the central facsimile number, (703) 872-9306.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Further references of interest are cited on Form PLO-892, which is attachment to this office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen Kim whose telephone number is (571) 272-2349. The examiner can normally be reached on Monday through Thursday.

Application/Control Number: 10/599,233  
Art Unit: 2874

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/Ellen Kim/  
Primary Examiner,  
Art Unit 2874  
November 10, 2009/EK